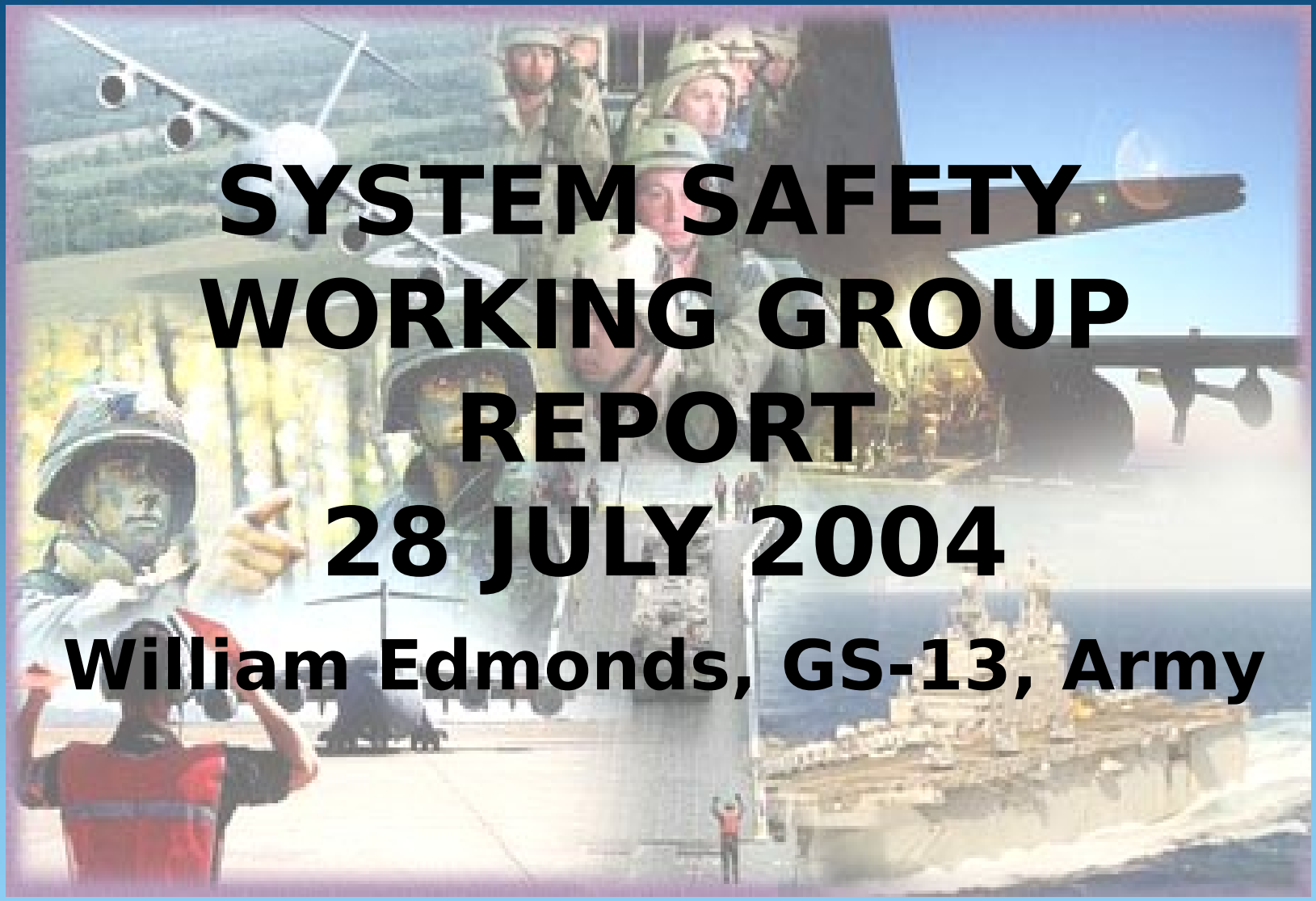
Joint Service Safety Conference



SYSTEM SAFETY WORKING GROUP REPORT

28 JULY 2004

William Edmonds, GS-13, Army

Joint Service Safety Conference

SYSTEM SAFETY WORKING GROUP

- Membership/Attendees
- Outstanding Business
- New Business
- Recommendations/Decision Items

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SYSTEM SAFETY WORKING GROUP

- Membership/Attendees
  - USAF: Maj. Robert Baker
  - USA: Mr. William Edmonds
  - USN: Mr. Mark Geiger
  - USCG: Ms. Nancy McWilliams

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SYSTEM SAFETY WORKING GROUP

- Outstanding Business
  - *Training program managers*
  - *System safety guidance*
  - *Assessing system safety*
  - *Acquisition centric safety engineers*
  - *Information for service acquisition executives*

(MOU) Training program managers

- Reviewed DAU training curriculum as part of the DoD ESOH IPT
  - ACQ 101, ACQ 201, PMT 352, SYS 301, TST 101
- Safety Center websites with System Safety section
  - http://www.safetycenter.navy.mil/acquisition/default.htm
  - https://safety.army.mil/home.html ; Risk Management; System Safety
- Support to OSD(ATL) in creating a distance learning course on System Safety for continuing education credit

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(MOU) System safety guidance

DoDD 5000.1 Directive — **Overarching Philosophy**

DoDI 5000.2 Instruction — **Model for Operation**

DoD Acquisition Guidebook — **Procedures & Expectations**

AT&L Knowledge Sharing System (AKSS) — **Policy & Links**

Component Acquisition Policy

Acquisition Community Connection (ACC) — **What to Do & How to Do It**

ESOH Special Interest Area - Procedures

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(MOU) Assist the Service's Acquisition Executives to assess system safety at service-level milestone decision reviews.

- Progress made in assessment at MDR's
- Our Challenge: Enabling acquisitions to better manage risks
  - provide hazards from mishaps
  - shape inputs to requirements/capabilities
  - enhance use of safety center expertise

(MOU) Acquisition centric safety engineers

- Determined Level III Certification in the Systems Engineering DAWIA Career Field needed for Safety Engineers
- Navy has developed training guidelines and certification for system safety engineers
  - Can be tailored for other services
- Our Challenge: Facilitate use of hazards data by systems engineers to produce safer design solutions

(MOU) Information for service acquisition executives

Participation through the DSOC IIO, ASI, & ATP TF's and DoD ESOH IPT

- IIO: assessed service mishap data systems and found them inadequate to effectively identify trends
- ASI: identifying hazards in mishaps to select needed controls and associated investment strategies needed
- ATP: memo "Defense Acq. SS" Acting USD (ATL), Mr. Michael W. Wynne
  - Re-emphasizes system safety in acquisitions
  - Requires use of Mil-Std 882 in all contracts

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- New Business

Address Challenges: Enabling acquisitions to better manage risks

- provide hazards from mishaps
- shape inputs to requirements/capabilities
- enhance use of safety center expertise
- facilitate use of hazards data by systems engineers to produce safer design solutions

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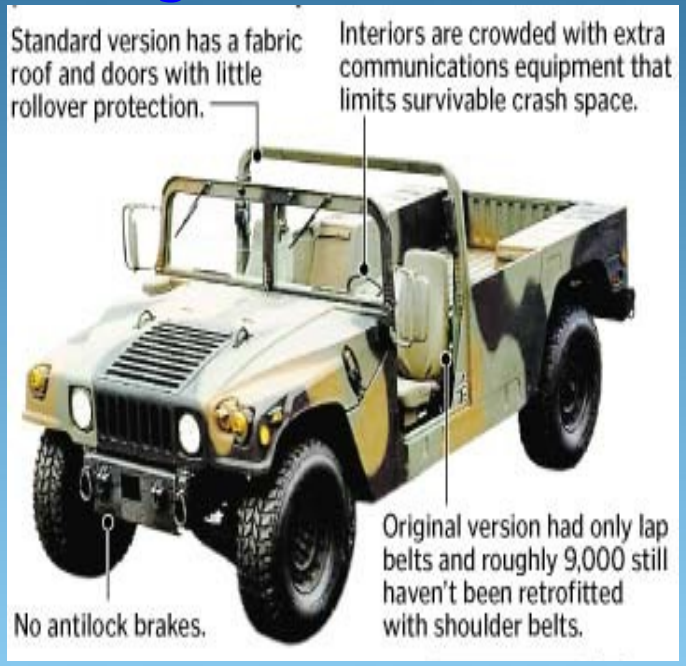
What were the Hazards?
Were they Risk Managed?


Standard version has a fabric roof and doors with little rollover protection.
Interiors are crowded with extra communications equipment that limits survivable crash space.
Original version had only lap belts and roughly 9,000 still haven't been retrofitted with shoulder belts.
No antilock brakes.

Identifying Control Failures may not answer the Question of How to Prevent the Next Accident

- Failed to stay alert or attentive
- Followed too closely for conditions or vehicle speed/design
- Excessive speed
- Failed to wear seat belt

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Recommendations

- Transition from a “Controls Based” to a “Hazards Based” mishap investigation process
  - Utilize common hazards identified across the Services to mitigate in similar developments
  - Identify and prioritize investment strategies based on analysis of recurrent hazards
  - Support development of information